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calculating a relative SNR variant based upon said acquired signal-to-noise ratio; and communicating said relative SNR variant through the use of a

media device.

2. (Amended) A method of measuring and reporting realtime SNR measurements during magnetic resonance imaging as described in claim 1, further comprising:

receiving a real time image from a magnetic resonance imaging

calculating an acquired signal-to-noise ratio based upon said real time image;

calculating a relative SNR variant based upon said acquired signal-to-noise ratio:

communicating said relative SNR variant through the use of a media device; and

calculating a noise region-of-interest and a signal region-of-interest, said acquired signal-to-noise ratio equal to said signal region-of-interest divided by said noise region-of-interest.

- 3. (Amended) A method as described in claim  $\frac{1}{2}$ , wherein said noise region-of-interest and said signal region-of-interest are calculated using one of the group of magnitude images or complex image data.
- 4. (Amended) A method as described in claim 4 2, wherein said noise region-of-interest and said signal region-of-interest are calculated using k-space pixilization.
- (Original) A method as described in claim 1, further comprising:

calculating a reference SNR, said relative SNR variant based upon said acquired SNR divided by said reference SNR.

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6. (Original) A method as described in claim 5, wherein said reference SNR is based upon the average of a plurality of said acquired SNRs.

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- 7. (Original) A method as described in claim 5, wherein said reference SNR is recalculated when said relative SNR variant exceeds a preset threshold.
- 8. (Original) A method as described in claim 5, wherein said reference SNR is reset to said acquired SNR when said relative SNR variant exceeds a preset threshold.
- 9. (Original) A method as described in claim I, wherein said media device comprises a visual display.
- 10. (Original) A method as described in claim 1, wherein said media device comprises an audio feedback device.
- 11. (Original) A method as described in claim 10, wherein said audio feedback device operates under an audio scheme based upon changes in said acquire signal-to-noise ratio.
- 12. (Original) A method as described in claim 11, wherein said audio scheme varies a tone based upon the increase or decrease of said acquired signal-to-noise ratio.
- 13. (Original) A method of measuring and reporting realtime SNR measurements during magnetic resonance imaging comprising:

receiving a plurality of real time images from a magnetic resonance imaging system;

calculating an acquired signal-to-noise ratio based upon each of said real time images;

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calculating a reference SNR based upon a plurality of said acquired signal-to-noise ratios;

calculating a relative SNR variant based upon said acquired signal-to-noise ratio; and

communicating said relative SNR variant through the use of a audio feedback device.

- 14. (Original) A method as described in claim 13, wherein said audio scheme indicates and increase or decrease in the acquired SNR.
- 15. (Original) A method as described in claim 14, wherein said increase or said decrease is indicated by a change in tone.
- 16. (Original) A method as described in claim 13, wherein said audio scheme indicate the magnitude of change of said acquired SNR through the use of multiple beeps.
- 17. (Original) A method as described in claim 13, wherein said relative SNR variant is based upon said acquired signal-to-noise ratio divided by said reference signal-to-noise ratio.
- 18. (Original) A method as described in claim 13, wherein said relative SNR variant is based upon consecutive of said acquired signal-to-noise ratios.
- 19. (Original) An apparatus for calculating the real-time SNR of a magnetic resonance imaging system comprising:

an image processing engine in communication with the magnetic resonance imaging system, said image processing engine calculating an acquired real-time signal-to-noise ration for each of a plurality of real-time images received from the magnetic resonance imaging system and comparing Serial No. 10/064,447

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said acquired real-time signal-to-noise ratios with a reference signal-to-noise ratio to develop a relative signal-to-noise variance; and

an audio feedback device broadcasting an audio signal in response to said relative SNR variance.

20. (Original) An apparatus as described in claim 19, further comprising:

a visual display in communication with said image processing engine, said visual display providing visual output in response to said relative SNR variance.